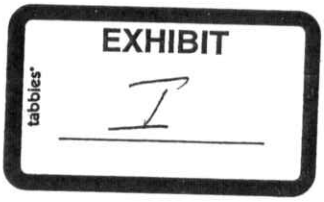

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STATE OF MAINE
BOARD OF ENVIRONMENTAL PROTECTION

In Re:

RECORD HILL WIND, LLC	)	
Roxbury, Oxford County	)	**AFFIDAVIT OF**
RECORD HILL WIND PROJECT	)	**MICHAEL A. NISSENBAUM, M.D.**
L-24441-24-A-N (approval	)	
L-24441-TF-B-N (approval)	)	

I, Michael A. Nissenbaum, M.D., being first duly sworn, do depose and say as follows:

1. My name is Michael A. Nissenbaum, M.D. I am a graduate of University of Toronto Medical School with post graduate training at McGill University and the University of California. I am a specialist in diagnostic imaging, whose training and work involves developing and utilizing an understanding of the effects of energy deposition, including sound, on human tissues. I am a former Associate Director of MRI at a major Harvard hospital, a former faculty member (junior) at Harvard University, and a published author. A copy of my CV is attached to this Affidavit as *Exhibit A.*

2. I give this Affidavit in support of citizens of the Roxbury, Maine area who are requesting the Board of Environmental Protection ("BEP") to grant a hearing on the health effects of the proposed Record Hill Wind Project.

3. I developed an interest in the health effects of wind turbine projects after becoming aware of and investigating the wide spread and serious health effects suffered by most of the residents of Mars Hill, Maine who live in proximity to a linear arrangement of wind turbines comprising a ridgeline wind Industrial Wind Project. I am preparing a formal study, which includes a control group, on the subject for publication in a peer reviewed medical journal. The draft will be sent to the New England Journal of Medicine for consideration for publication.

I attach a slide show on the preliminary findings of my research project as *Exhibit B* to this Affidavit.

4. There are some differences in the Mars Hill Wind Project now operating and the proposed Record Hill Wind Project. However, there are also some similarities regarding the DEP assessments and permitting process applied which are generally acknowledged to have failed in Mars Hill, and yet were applied once again at Record Hill. It is my opinion that the BEP should hold a public hearing to examine the potential health effects of the Record Hill Wind Project given the potential seriousness of the health issues, and to ensure that an appropriately corrected modeling process (compared to the flawed model that was in fact used) is implemented to best predict the sound emissions that can be expected from the Record Hill Wind Project.

5. The Final Order in the Record Hill application states at page 10 that "Enrad stated that infrasound has been widely accepted to be of no concern below the common human perception threshold of tonal sounds." This statement is in error. **Infrasound has not been widely accepted to be of no concern other than by non-physicians doing work contracted by members of the Wind Industry, and some of the key non-physicians utilized by the Wind Industry have issued self conflicting and contradictory opinions on the issue. There has been no medical refutation of the potential negative health effects of infrasound emmited by Industrial Wind Turbines and the subject is at the least an open medical issue of concern warranting immediate investigation given the haste with which Industrial Wind Projects are being planned and established. There is additionally at this point a small body of unrefuted medical research indicating that there may be problems associated with infrasound. Regardless, there are clear issues relating to audible low frequency noise of a persistent, pulsatile nature such as created by Industrial Wind Turbines.**

6. The Final Order in Record Hill at pg. 10 also states that "MCDC found no evidence in peer- reviewed medical and health effects from noise generated by wind turbines other than occasional reports of annoyances." **While the word 'annoyance' has been used in European studies relating to this turbine noise, the term has been misinterpreted by the Wind Industry and the Maine CDC to mean an inconsequential disturbance, whereas the authors , not being medical doctors, and not being native English speakers, did not describe the health significance or severity of the 'annoyance' in medical terms. A review of the Mars Hill and Ontario findings, however, indicates that this 'annoyance' is one of the root causes of the sleep disturbances and secondary negative health effects suffered by the residents of Mars Hill, Maine.**

7. Furthermore, and more significantly, the Maine CDC did not investigate the cluster of health complaints in Mars Hill for potential significance. Given that Mars Hill potentially represents a new negative health phenomenon resulting from the interaction of a ridge line source of Industrial Wind Turbines sited too close to human dwellings after faulty pre installation sound modeling, this represents a failure of the Maine CDC to comply with its mandate to investigate newly arising health issues to better understand them and propose solutions for mitigation and future prevention where required. **As such, any statements emanating from the Maine CDC on this subject must be viewed as being based on incomplete information, at this point in time.**

8. **Ex-Governor Angus King, a principal in the Record Hill Wind Project, has publicly admitted to mistakes made in Mars Hill. To the extent that these mistakes relate to faulty pre installation sound modeling, he should be expected to agree that the same modeling mistakes should not be repeated in Record Hill.**

9. Credible evidence of negative health effects from Industrial Wind Projects has been collected in Ontario, Canada by Robert McMurtry, M.D. My own preliminary but significant findings from Mars Hill, Maine and a draft of a potential landmark book, "Wind Turbine Syndrome" by Nina Pierpont, M.D.., and others, are also new sources of concern. Dr. Pierpont is an accomplished and well respected physician who is making significant contributions to the body of knowledge on the health impacts of wind turbines. Her basic premises have been well received by some of the foremost experts in the field of Otorhinolaryngology and Otology. I furthermore agree with her statements and recommendations at pages 11-12 of an excerpt of her Draft Report attached hereto as *Exhibit C.*

10. On Saturday, September 12, 2009, the Maine Medical Association passed a resolution, attached hereto as *Exhibit D,* expressing enough concern about the potential health effects of wind projects to urge caution and appropriate sensitivity in siting and permitting, as well as further studies on the subject.

11. This resolution was passed over the prior objections (to a similar resolution in an MMA subcommittee) of the Director of the Maine CDC. The Maine CDC Director's refusal to recognize even potential negative health effects of wind power projects, and her public statements urging the rapid establishment of Industrial Wind Projects in Maine seem to be at odds with the caution expressed by the wider medical community, as indicated by the attached Maine Medical Association resolution, and, as noted above, appears based upon erroneously interpreted and incomplete information.

12. Pending the use of more appropriately designed modeling studies, and the establishment of more appropriate regulations, the DEP and LURC should exercise more caution and deliberation prior to permitting additional IndustrialWind Projects, recognizing that

there are still currently unknowns. The physical scale of the Industrial Wind Turbines used today is relatively new and we are only beginning to learn, as physicians, about the presence or absence of negative health effects that may result from poor siting decisions. In so doing, they will be better discharging their responsibility to protect the health and safety of Maine citizens.

13. I urge BEP to hold a public hearing on the appeal of the DEP Final Order for Record Hill on health effects of the approved Industrial Wind Project and, if that hearing is held, I will give testimony summarized in this Affidavit.

Dated: September 17, 2009

Michael A. Nissenbaum, M.D.

STATE OF MAINE
Aroostook, ss.

September 17, 2009

Personally appeared the above-named Michael Nissenbaum, M.D., and being sworn, made oath that the foregoing statements by him described are upon his own knowledge, information and belief and that, so far as upon information and belief, that he believes this information to be true.

Before me,

Notary Public/Attorney-at-Law
My commission expires:

SALLY CARRIER
Notary Public, Maine
My Commission Expires
February 1, 2014

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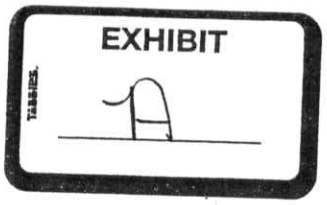

Curriculum Vitae - Michael A. Nissenbaum, MD

Address: 194 E. Main St., Fort Kent, ME 04743

Citizenship: Canadian / American

Positions Held:

1998-current:	Solo Radiologist, Northern Maine Medical Center, Fort Kent, ME
1994-1998	Chief, MRI Clinical Services, MRI Scan Center, Ft. Lauderdale. FL
1992-1994	Associate Director to Bob Edelman, MRI, Beth Israel Hospital, Boston, MA, (Harvard Medical School)

Education:

1979	McGill University, Faculty of Arts and Science (Honours Anthropology)
1983 M.D.	University of Toronto, Faculty of Medicine

Postdoctoral Training:

Internships, Residencies, Clinical Fellowships:

1984-1988	Resident, Radiology, McGill University Faculty of Medicine, Montreal, Canada
1983	Intern, Internal Medicine, Mount Sinai Hospital, Toronto, Canada
1988	Armed Forces Institute of Pathology, Washington, DC
1991-1992	MRI Clinical Fellow, Long Beach Memorial Medical Center, Long Beach, CA Supervisor: William G. Bradley, Jr., M.D., Ph. D.

Research Fellowship:

1990-1991	Interventional Research Fellow, University of California at San Diego, CA

Licensures and Certifications:

1984	Quebec License Registration
1986	Ontario License Registration
1989	California License Registration
1991	Massachusetts License Registration
1994	Florida License Registration
1988	Fellow, Royal College of Physicians of Canada
1988	Diplomate, American Board of Radiology
1988	Diplomate, Quebec Board of Medical Specialists (Radiology)
1998	Maine Medical License

Academic Appointments:

1992-94	Harvard Medical School, Boston, MA.

Hospital Appointments:

1989-1990	Attending Radiologist, Alexandra Hospital, Ingersoll, Ontario.
1991-1992	Clinical Fellow, Memorial Medical Center, Long Beach, CA.
1992- 1994	Attending Radiologist, Associate Director of MRI, Beth Israel Hospital, Boston, MA
1998-present	Attending Radiologist, Northern Maine Medical Center

Awards and Honours:

1977, 1978, 1979	McGill Scholar –McGill University
1977, 1978, 1979	James McGill Award – McGill University
1988	Chief Resident, Royal Victoria Hospital

Memberships, Offices and Committee Assignments in Professional Societies:

American Roentgen Ray Society -L
Canadian Medical Association
American College of Radiology - L
Radiological Society of North America - L
Associate Member, American Society of Neuroradiology -L

Teaching Experience:

1990	Percutaneous Ethanol Ablation of Hepatic Neoplasia: Tissue Responses, Physiological Effects, and Imaging Characteristics in the Normal Liver, Dept. of Rad. Research Conference, Univ. of CA at San Diego
1991	Interventional Radiology, University of California at San Diego
1991-1992	Monthly Lecturer MR Visiting Fellowship, MRI Instruction to Radiology Residents, University at Irvine Memorial MRI Educational Institute
1992	Lecture: MRA- Current State-of-the-Art. To: Grand Surgical Rounds, Department of Surgery, Beth Israel Hospital, Harvard Medical School. Nov 1992
1993	Lecture: MRI Update: New Diagnostic Applications. To: Internal Medicine Group, Beth Israel Hospital, Harvard Medical School. October 1993
1993	Lecture: Optimization of Magnetic Resonance Angiography. To: Brigham and Womens' Hospital MRI and CT Update: October 1993, Harvard Medical School
1994	Lecture: Advanced MRI Techniques. To: Department of Radioology, Chinese University Hong Kong. December 1994
1995	Ongoing Lectures: Topics in Neurological and Body MRI and MRA (AMA category 1 credits) monthly at MRI Scan Center, Ft. Lauderdale, FL

Editorial Responsibilities:

1992-98	Reviewer, MRI related topics. American Journal of Roentgenology

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Principal Clinical and Hospital Service Responsibilities:

1992-94	Associate Director, MRI, Beth Israel Hospital, Boston, MA.
1994-98	Chief, MRI Clinical Services and Advanced MR Applications MRI Scan Centers, Ft. Lauderdale, FL

Grant Support:

Seed grant for Tumor Ablation Research, Canadian Radiological Foundation Research Award (1988-1989).

Imaging Guided Tumor Ablation Project, Academic Senate of the University of California (1990-1991).

Principle Investigator: AMI-25, Superparamagnetic Iron Oxide Contrast Agent for use in Assessment of Hepatic Malignancy. 1991-1992 at Long Beach Memorial Medical Center
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3. **Nissenbaum MA.** MRI of Bone Marrow Disease, in Magnetic Resonance Imaging, Edelman and Hesselink, 1995.

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2. **Nissenbaum MA,** Margossian P, Song SJ, Brown SM, Widoff BE, Yan K, Amster JL, Bradley WG. Increases Sensitivity of Black Blood MRA: A Role for Optimized Sequences? Society for MRI in Med. 1992;

3. **Nissenbaum MA,** Palmer N, Widoff BE, Song SJ, Brown SM, Yan K, Amster JL, Bradley WG. MRI of the Post Operative Lumbar Spine: The Value of Gadolinium Enhanced Multiplanar Reconstruction Using 3D Acquired Datasets Yielding 1MM Isotropic Resolution. Society for MRI in Med. 1992;

4. Brown SM, **Nissenbaum MA,** Atkinson DJ, Song SJ, Widoff BE, Yan K, Kurzweil PR, Jackson D, Bradley WG. MR Arthrography with Contrast Enhancement (MR ACE): Evaluation of Articular Cartilage in the Knee. Society for MRI in Med. 1992;

5. Brown SM, Atkinson DJ, **Nissenbaum MA,** Song SJ, Widoff BE, Yan K, Kurzweil PR, Jackson D, Bradley WG. Kinematic MRI of the Knee with Biplane Acquisition. Society for MRI in Med. 1992;

6. Bradley WG, Atkinson DJ, Nitz WR, **Nissenbaum MA,** Song SJ, Widoff BE, Yan K, Brown SM. Quantitative CSF Velocity Imaging: Comparison of Normals and Patients with Shunt-Responsive NPH. Society for MRI in Med. 1992;

7. Bradley WG, Brown SM, Widoff BE, Yan K, Song SJ, **Nissenbaum MA.** Analysis of Aneurysms and AVM's Missed on Routine MR Images which are Detected by MR Angiography. Society for MRI in Med. 1992;

8. **Nissenbaum MA,** Atkinson DJ, Brown SM, Song SJ, Widoff BE, Yan K, Bradley WG. Avoiding T1 Contrast Variability in IR Prepped Ultrafast Imaging Using Breath Holding. Society for MRI in Med. (1992).

9. **Nissenbaum MA,** Palmer N, Widoff BE, Brown SM, Song SJ, Yan K, Amster JL, Bradley WG. Assessments of the Lumbar Spine Using 3D Acquisition Sequences Providing 1mm Isotropic Resolution: The Value of Multiplanar Reconstruction. Society for MRI in Med. (1992).

10. **Nissenbaum MA,** Brown SM, Song SJ, Widoff BE, Yan K, Bradley WG. Decreased Intensity of Pathology in the Left Lobe of the Liver on T2 Weighted Imaging Related to Pulsation Induced Intravoxel Dephasing: Implications for Clinical Imaging. Society for MRI in Med. (1992).